



Snow Algae Powder

Technical Data Sheet

Snow Algae Powder is a novel Maltodextrin based granulate containing snow algae extract.

Composition

| | |
|--------------------------|-------|
| Snow Algae Extract (dry) | 0.2% |
| Maltodextrin | 92% |
| Phospholipids | 0.16% |
| Aqua (residual moisture) | ~7% |

INCI (EU/PCPC) Declaration

Coenochloris Signiensis Extract (and) Maltodextrin (and) Lecithin (and) Aqua/Water

Physical Properties

| | |
|-------------|----------------|
| Consistency | powder |
| Appearance | white to wheat |
| Odor | characteristic |

Characteristics

| | |
|--------------|-------------------------------|
| pH-Value | 4.5-7.5 (1% product in water) |
| Bulk density | 550-850 g/L |
| Moist mass | <7% |

| | |
|--------------|--------------------|
| Bacteriology | total CFU < 1000/g |
|--------------|--------------------|

| | |
|------------------|---------|
| Stability | 3 years |
|------------------|---------|

| | |
|------------------|-----------------------------|
| Packaging | 10kg polyethylene container |
|------------------|-----------------------------|

| | |
|----------------|--|
| Storage | 25°C, in closed containers at a dark place |
|----------------|--|

Specification:

0800 Snow Algae Powder

08.12.2015

Origin

The product was developed by Mibelle Group Biochemistry, Switzerland in 2009 for cosmetic applications.

| Components /INCI (EU/PCPC) | CAS | EC | % w/w | origin |
|---------------------------------|--------------|-----------|------------|-----------------------------|
| Coenochloris Signiensis Extract | 1362738-67-7 | / | 0.2 (dry) | Vegetable/ biotechnology |
| Maltodextrin | 9050-36-6 | 232-940-4 | 92 | Vegetable |
| Lecithin | 8002-43-5 | 232-307-2 | 0.16 | Vegetable |
| Aqua/Water | 7732-18-5 | 231-791-2 | 7.64 | Natural |

We confirm that this cosmetic ingredient was manufactured by Mibelle Group Biochemistry in Switzerland, thus can be considered as Swiss origin.

HS Code (Switzerland): 3824.9999

VOC

This product contains <0.5% VOC (volatile organic compound) according to annex 1 of the Swiss regulation SR 814.018 (VOCV) and to 40 CFR 51.100 issued by U.S.Environmental Protection Agency (EPA).

Manufacturing

Manufacturer

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Manufacturing Process

Cultivation of green phase of snow algae culture



Cultivation of red phase of snow algae culture



Harvesting



Extraction by high pressure homogenization

Encapsulation and stabilization of the oil- and water-soluble cell components into liposomes



Fluidized bed drying on excipient maltodextrin



Packaging



Quality control

Certificates

Certificates are available upon request

ISO 9001:2015

ISO norm for quality management systems

ISO 22716:2007

ISO norm for Cosmetic GMP (Good Manufacturing Practice)

ISO 14001:2004

ISO norm for environmental management systems

EFfCI GMP

GMP standard for cosmetic ingredients 2012 of the European Federation for Cosmetic Ingredients (EFfCI)

Residues/Impurities

Pathogens

We confirm the absence of pathogenic germs as follows (absent in 1g):

- Yeast / Moulds
- Pseudomonas aeruginosa
- E.coli / Enterococcae
- Candida albicans
- Staphylococcus aureus
- Aspergillus niger

Solvents / Residual solvents

Based upon our knowledge about the raw materials and the production process, we confirm that the product contains no other solvents than specified in the INCI, unless non-intended, technically unavoidable traces of residual solvents below 0.5% (ethanol) ,in accordance with good manufacturing process.

CMR

Based upon our knowledge about the raw materials and the manufacturing process, we confirm that the product does not contain any substances that are carcinogenic, mutagenic or toxic for reproduction (CMR substances) according to Annex VI of (CLP) Regulation (EC) No 1272/2008, unless non-intended technically unavoidable traces regarding good manufacturing process.

Heavy metals

| | mg/kg (ppm) | Method |
|-----------------|-------------|------------------------|
| • Arsenic (As) | <1.0 | EN 15763:2009 |
| • Cadmium (Cd) | <1.0 | EN 15763:2009 |
| • Lead (Pb) | <1.0 | EN 15763:2009 |
| • Mercury (Hg) | <1.0 | EN 15763:2009 |
| • Antimony (Sb) | <1.0 | DIN EN ISO 17294-2-E29 |
| • Chromium (Cr) | <1.0 | DIN EN ISO 17294-2-E29 |
| • Nickel (Ni) | <1.0 | DIN EN ISO 17294-2-E29 |

Technically unavoidable traces of heavy metals, in accordance with good manufacturing process < 20 ppm

PAH

Based upon our knowledge about the raw materials and the production process, no polycyclic aromatic hydrocarbons (PAH's) are used or expected to be formed in the manufacture of the product.

Pesticides

The product was screened for the content of pesticides and does not contain pesticides above the concentration limit according to the regulation (EC) No 396/2005.

Phthalates

Based upon our knowledge about the raw materials and the manufacturing process we do not expect phthalates (incl. DBP, DMP, Diethyl-Phthalate DEP) to be present.

Proposition 65 (California)

To the best of our knowledge, we confirm that the product does not contain any contaminants or bi-products, known to the State of California to cause cancer or reproductive toxicity as listed under Proposition 65 State Drinking Water and Toxic Enforcement Act (current list), unless non-intended technically unavoidable traces regarding good manufacturing process.

Other Impurities

Based upon our knowledge about the raw materials and the production process, the product should not contain any impurities or residues which are not mentioned in the INCI, caused by the manufacturing process, unless non-intended technically unavoidable traces regarding good manufacturing process.

Preservative System

Contains no preservatives according to EU Cosmetic Regulation (EC) 1223/2009, Annex V.

Regulatory

Admission status of the raw material or its components / Restrictions

EU

Not specifically regulated under EU Cosmetic Regulation (EC) 1223/2009. No restrictions.

Meets the legal standards of Regulation (EC) No 1223/2009 of the European Parliament and the council of 30 November 2009 on cosmetic products and does not contain any substances listed under annexes II or III.

We hereby confirm that the product does not contain any nanoparticles according to the definition of nanomaterial given in Article 2 (§1k) of the European Cosmetics Regulation (EC)1223/2009.

Furthermore we declare that to the best of our knowledge we do comply with the French decree 2012-232. The above mentioned product does not contain nanoparticles, which are regulated by this decree.

Australia

The component *Coenochloris Signiensis* Extract is not listed on AICS.

Please consider NICNAS exemptions for notification.

Canada

The component *Coenochloris Signiensis* Extract is not specified on DSL/ NDSL (CEPA Environmental Registry). Given the recommended use level, it is exempted by the low volume importation regulation.

China

The Chinese Chemical Substance legislation and the Chinese 'Hygiene Supervision over Cosmetics' legislation have to be respected.

For further information please contact Mibelle Biochemistry

Japan

Authorised. Not specifically regulated according to the New Cosmetic Standards, enforced on April 1st 2001, by the ministry of Health and Welfare (MHW).

Korea (KCA)

All components are listed on the KCID.

USA

No restrictions for the use as a cosmetic active ingredient at the recommended concentrations in conventional cosmetic products.

Not listed as OTC drug (FDA)

Other Countries

To the best of our knowledge we hereby confirm, that we are not aware of any restrictions for the use of this product as a cosmetic active ingredient at the recommended concentrations and it conforms to the cosmetic regulations.

REACH

Meets the regulation (EC) 1907/2006 (REACH) as all substances it is composed of,

- are excluded from registration and /or
- are exempted from registration, and/or
- have been registered by our suppliers

The product does not contain any Substances of Very High Concern (SVHC) as listed under Annex XIV of the REACH legislation.

CITES

We hereby confirm, that the vegetable components are not subject of the Cites regulation.

Statements

Allergens

We hereby confirm that the product was screened for the content of the 54 fragrance allergens (additionally atranol and chloratranol: components of oak moss and tree moss extract).

This product does not contain allergenic substances above the concentration limits according to EU Cosmetic Regulation (EC) 1223/2009, Appendix III.

Animal Test

We hereby confirm that the product has not been tested on animals by or on behalf of our company. To the best of our knowledge we confirm that the component parts, as defined by the INCI nomenclature, are in compliance with the requirements on ingredients as stated in Regulation 1223/2009/ EC and have not been the subject of animal testing or retesting for cosmetic purposes since march 11th 2009 at the latest.

Animal Free /Pork Free

We hereby confirm that the production of this product does not involve the use of any animal originating or animal derived components.

The term "animals" refers to the entire animal kingdom, that is all vertebrates and all multicellular invertebrates.

BSE /TSE Hazard

We hereby confirm that the product does not contain components originating from animal sources. Thus the product can be considered as "BSE/TSE Free".

Cyclosiloxanes D4, D5 and D6

Based upon our knowledge about the raw materials and the manufacturing process, we confirm that neither octamethylcyclotetrasiloxane, CAS -Nr. 555-67-2 (D4), decamethylcyclopentasiloxane, CAS-Nr. 541-05-6 (D5) nor dodecamethylcyclohexasiloxane, CAS-Nr. 540-97-6 (D6), are used in the manufacture of the product.

Formaldehyde/ Formaldehyde Releasers

Based upon our knowledge about the raw materials and the manufacturing process, we hereby confirm that the product does not contain formaldehyde and/or formaldehyde releasers.

GMO

GMO free (component lecithin PCR neg.)

The component lecithin (originating from soy) is measured batch wise for GMO content by PCR. Only PCR negative lecithin is used for the manufacturing of this product.

Latex

We hereby confirm that the product and packaging material are free of latex.

Microplastics

We hereby confirm that the product does not contain microplastic. 'Microplastic' means particles with a size of below 5 mm of insoluble macromolecular plastic.

Parabens

We hereby confirm that the product is paraben free.

Gluten

Based upon our knowledge about the raw materials and the manufacturing process, we hereby confirm that the product does not contain impurities or residues of gluten containing ingredients or proteins thereof nor are such components present during manufacturing. Thus the product should not contain any impurities or residues of gluten and can be considered as "Gluten Free".

Halal

We hereby confirm that this product is halal certified by the Halal Certification Services GmbH, 4310 Rheinfelden, Switzerland

Latex

We hereby confirm that the product and packaging material are free of latex.

Microplastics

We hereby confirm that the product does not contain microplastic. 'Microplastic' means particles with a size of below 5 mm of insoluble macromolecular plastic.

Parabens

We hereby confirm that the product is paraben free.

Palm Oil / Palm Oil Derivatives

We hereby confirm that the product does neither contain palm oil based ingredients nor palm oil derivatives.

Petrochemicals / Petrochemical Derivatives

Based upon our knowledge about the raw materials and the manufacturing process, we confirm that no petrochemicals or substances of petrochemical origin are used or expected to be formed in the manufacture of the product.

Vegan

We hereby confirm that

- the development and manufacturing of this product don't involve the use of any animal* originating or animal derived components
- the development and manufacturing of this product don't involve the testing of animals by or on behalf of Mibelle Biochemistry.
- The product is stored separately from animal originating or animal derived components, or products containing such ingredients.

*The term "animal" refers to the entire animal kingdom, that is all vertebrates and all multicellular invertebrates.

Toxicological Review / Physiological Safety

Rat oral LD50 [mg/kg]

No LD50 was conducted. Regarding the composition, a LD50 value of > 2000 mg/kg has to be expected.

Photosensitization

A human photo patch test (at 10%) with undiluted product was conducted on 50 volunteers.

On the basis of the test result and under the test conditions, there was no evidence of a primary photo toxic reaction.

Mutagenicity (Ames Test)

The product is considered to be non-mutagenic in the conducted screening bacterial reverse mutation assay.

Ocular Irritant Potential (Het-Cam Test)

The ocular tolerance was tested by the Het-Cam method at 10%. According to the JORF classification the product was considered as "slightly irritant".

Safety

We hereby confirm, that Snow Algae Powder has been evaluated for its safety as cosmetic ingredient, at recommended use level. Snow Algae Powder satisfies, according to the current state of knowledge, the safety requirements for the intended applications, at recommended concentrations under normal and reasonably foreseeable conditions of use.

For additional safety information and necessary precautions, please refer to the Material Safety Data Sheet.

Ecology

General

The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

Formulation Guidelines

| | |
|-----------------------|---|
| Optimal pH Range | 4.0 – 8.0 |
| Recommended use level | 2 -3 % |
| Proven efficacy | 2% |
| Thermostability | Temperatures of up to 60°C for a short time do not affect the stability of Snow Algae Powder. |
| Incompatibilities | No further incompatibilities detected. |
| Solubility | Partially water soluble: 20% Snow Algae Powder in water results in a slightly turbid liposomal emulsion. |
| Incorporation | Snow Algae Powder can be incorporated into most formulations, emulsions and gels, except water free formulations. Dissolve Snow Algae Powder into the aqueous phase or add pre-solved (dissolvable up to 20% in water) Snow Algae Powder during the cooling phase <60 °C. |
| Remarks | No further remarks. |

Authorized by Dr. Cornelia Schürch, Head of Development & Compliance

Valid without signature

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